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**U.S. GEOLOGICAL SURVEY LIBRARY  
FIELD RECORDS COLLECTION  
DENVER, COLORADO**

**JOHN TILTON HACK**  
(1913 - 1991)

NOTES, CORRESPONDENCE, PAPERS

1946 - 1963

(3.7 linear ft. and 2 map folders)

John T. Hack was born in Chicago, Illinois, in 1913. He received A.B., M.A., and Ph.D. degrees from Harvard University in 1935, 1938, and 1940, respectively. Hack joined the Military Geology Unit of the USGS in 1942 and transferred to the Geologic Division after World War II, where he remained until his retirement in 1981. He served as Assistant Chief Geologist from 1966 to 1971. As a geomorphologist Hack was largely responsible for introducing the concept of dynamic equilibrium into geomorphic and hydrologic studies. He was a recipient of the Kirk Bryan Award and the Distinguished Career Award from the Geological Society of America, and the G.K. Warren Prize from the National Academy of Sciences.

INVENTORY

By

Clay M. Martin  
U.S. Geological Survey Field Records Collection  
MS 914, Box 25046, Federal Center  
Denver, CO 80225-0046  
January 2011

Location of Field Notebooks: CS-6: 5-6

## **GEOLOGY OF THE BRANDYWINE AREA AND ORIGIN OF THE UPLANDS OF SOUTHERN MARYLAND. 1946-1973.**

<u>Item Number</u>	<u>Description</u>
NO-06896	J.T. Hack. Field notebook with geologic notes and sketches related to field investigation of the Brandywine, Bristol, Hughesville, Indian Head, La Plata, Leonardtown, Nanjemoy, Piscataway, Prince Frederick, and Upper Marlboro 7.5' quadrangles, Maryland. Stations H-1 through H-15, A-1 through A-84. 1947.
NO-06897	J.T. Hack. Field notebook with geologic notes and sketches and survey data related to field investigation of the Alexandria, Anacostia, Brandywine, Mount Vernon, Piscataway, Prince Frederick, and Upper Marlboro 7.5' quadrangles, Maryland, and the Alexandria, Surrey, Williamsburg, and Yorktown 7.5' quadrangles, Virginia. Stations 134-204. Circa 1949.
NO-06898	J.T. Hack. Field notebook pages with geologic notes and survey data and sketch maps and cross sections related to field investigation of the Popes Creek 7.5' quadrangle, Maryland. 1948.
NO-06899	J.T. Hack. Field notebook pages with geologic notes and sketches and survey, fossil, soil, and stream data related to field investigation of the Bel Air, Charlotte Hall, Elkton, Frederick, Hagerstown, Leonardtown, Mount Vernon, Piscataway, Point Lookout, Prince Frederick, Rock Point, and West River 7.5' quadrangles, Maryland, and the Charlottesville and Williamsburg 7.5' quadrangles, Virginia. Stations 205-400. 1951-1952.
NO-06900	J.T. Hack and R.M. Lindvall. Field notebook with geologic notes and sketches and literature notes related to field investigation of the Brandywine 7.5' quadrangle, the Maryland coastal plain, and adjacent areas. Circa 1950.
NO-06901	J.T. Hack. Field notebook pages with notes on soil samples rechecked in 1973 from the Alexandria, Anacostia, Beltsville, Brandywine, Bristol, Lanham, Laurel, and Upper Marlboro 7.5' quadrangles, Maryland. 1973.
NO-06902	Expandable envelope with miscellaneous field notes and laboratory data for the Brandywine Project, including screen analyses data, sand and silt sampling data, and tables of elevation data. Circa 1932-1948.
MA-01064	Map folder with 15 items: <ul style="list-style-type: none"> <li>- Two copies, each of the Leonardtown and Prince Frederick 15' quadrangles, Maryland, with annotations.</li> <li>- Annotated field map in nine sections, composed of enlarged portions of the northwest quarter of the Prince Frederick 15' quadrangle, Maryland.</li> <li>- Two 2.5 x 6-inch fragments of the southwestern and south-central part of the</li> </ul>

Bristol 7.5' quadrangle, Maryland, with annotations

Published as: U.S. Geological Survey. Professional paper 267. 1955.

**GEOLOGIC AND WATER INVESTIGATIONS IN THE SHENANDOAH VALLEY, VIRGINIA, WEST VIRGINIA, MARYLAND, AND PENNSYLVANIA. 1952-1959.**

- NO-06885 J.T. Hack. Field notebook pages with geologic and water resources notes related to field investigation of the Shenandoah Valley and surrounding area. Station numbers 401-538. 1952-1953.
- NO-06886 J.T. Hack. Field notebook pages with geologic and water resources notes, pebble counts, and sketch maps related to field investigation of the Shenandoah Valley and surrounding area. Station numbers 560-624. 1953.
- NO-06887 J.T. Hack. Field notebook pages with geologic and water resources notes, pebble counts, and sketch maps related to field investigation of the Shenandoah Valley and surrounding area. Station numbers 625-688. 1953.
- NO-06888 J.T. Hack. Field notebook pages with geologic and water resources notes, pebble counts, and sketch maps related to field investigations in Virginia, Maryland, and Pennsylvania, including the Shenandoah Valley and piedmont and coastal plain regions. Station numbers 508-701(1953), 1008-1010 (1959). 1953, 1959.
- NO-06889 J.T. Hack. Field notebook pages with geologic and water resources notes, pebble counts, and sketch maps related to field investigation of headwater areas of the Shenandoah Valley. Station numbers 703-810. 1954-1956.
- NO-06890 J.T. Hack. Field notebook pages with geologic and water resources notes, pebble counts, and sketch maps related to field investigation of the Shenandoah Valley and surrounding area. Station numbers 811-1069. 1956-1962.
- NO-06891 J.T. Hack. Field notebook pages with geologic notes on the Doyle River area, Virginia. 1964.
- NO-06892 J.T. Hack. Field notebook pages labeled "Morgantown Project 63-64", with geologic and water resources notes, pebble counts, and sketch maps. Station numbers 6330-6413 and 63-1 through 63-27. 1963-1964.
- NO-06893 J.T. Hack. Field notebook pages labeled "Morgantown Project 1965-1966", with geologic and water resources notes, pebble counts, and sketch maps. Station numbers 65001-65146. Also included is a sketch diagram entitled "Cross-section of Blowing Rock Gneiss". 1965-1966.

- NO-06894      Expandable envelope with five folders:  
Folder 1. Vertical angle book with survey data for Virginia Project 463301, Location 703. 1954.  
Folder 2. Sample analysis data for water samples from the Shenandoah Valley, Virginia. 1958-1960.  
Folder 3. Group of data sheets labeled "Topo Control Data—Middle River".  
Folder 4. Group of data labeled "Size analyses of floodplain materials".  
Folder 5. Group of data sheets and sample analysis reports labeled "Eh-Ph measurements in streams".
- MA-01063      Map folder with 110 items:
- One annotated copy, each, of the Fort Seybert, Hancock, Madison, Parnassus, Stony Man, Vesuvius, and Wardensville 15' quadrangles, Virginia-West Virginia-Maryland-Pennsylvania.
  - Two annotated copies, each, of the Berryville, Broadway, Craigsville, Edinsburgh, Elkton, Front Royal, Gerardstown, Martinsburg, Middletown, Mt. Jackson, Orkney Springs, and Winchester 15' quadrangles, Virginia-West Virginia-Maryland.
  - Three annotated copies, each, of the Harrisonburg, Lovingson, and Strasburg 15' quadrangles, Virginia.
  - Four annotated copies, each, of the Staunton and Waynesboro 15' quadrangles, Virginia.
  - Annotated field map composed of joined copies of the Mt. Jackson and Stony Man 15' quadrangles, Virginia.
  - Annotated field map in four sections, composed of enlarged portions of the University and Waynesboro 15' quadrangles, Virginia.
  - Two copies of an annotated field map composed of reduced, joined reproductions of the Hedgesville and Williamsport 7.5' quadrangles, Maryland-West Virginia.
  - Annotated copy of the Globe 7.5' quadrangle, North Carolina, sectioned into 10 pieces.
  - Group of 64 pebble count tabulation sheets from samples taken in the Shenandoah Valley. 1953-1954.

Published as: U.S. Geological Survey. Professional paper 347. 1960.

Published as: U.S. Geological Survey. Professional paper 484. 1965.

Published as: U.S. Geological Survey. Professional paper 1265. 1982.

## **POSTGLACIAL DRAINAGE EVOLUTION AND STREAM GEOMETRY IN THE ONTONAGON AREA, MICHIGAN. 1958-1960.**

- NO-06904      J.T. Hack. Field notebook pages with notes on geology, vegetation, glacial

terraces, mapping traverses, pebble counts, and soil samples from the Bergland, Carp River, Greenland, Ironwood, Little Girls Point, Marenisco, Matchwood, North Ironwood, Ontonagon, Rockland, Thayer, Thomaston, Wakefield, Watersmeet, and White Pine 7.5' quadrangles, Michigan. 1958-1960.

**GEOLOGY AND WATER INVESTIGATIONS OF THE HIGHLAND AND CASHIERS 7.5' QUADRANGLES, NORTH CAROLINA, SOUTH CAROLINA, AND GEORGIA. 1961.**

NO-06903 J.T. Hack. Field notebook pages with geologic and water notes related to field investigation of the Highland and Cashiers 7.5' quadrangles. Stations 1-8. 1961.

**GEOLOGIC INVESTIGATIONS OF RUSSELL CAVE, ALABAMA, AND MISCELLANEOUS INVESTIGATIONS IN ALABAMA AND TENNESSEE. 1961-1963.**

NO-06895 J.T. Hack. Field notebook pages with geologic notes related to field investigation of Russell Cave National Monument, Alabama. Also included are notes on the Cumberland Escarpment and Highland Rim areas, Tennessee. 1961-1963.

NO-11900 Expandable envelope with 42 black and white aerial photographs, some with annotations, covering the Doran Cove, 7.5' quadrangle, Alabama-Tennessee, including the Russell Cave National Monument area. 1958 survey.

Published as: U.S. National Park Service. Publications in Archeology. Vol. 13. 1974.

**AERIAL PHOTOGRAPHY COVERAGE OF PORTIONS OF THE EASTERN UNITED STATES. VARIOUS DATES.**

NO-11901 Expandable envelope with:

- A total of 35 black and white aerial photographs, some with annotations, covering the Stony Man 15' quadrangle, Virginia. 1951 survey.
- Copy of the Stony Man 15' quadrangle, Virginia, with approximate locations of aerial photography coverage indicated.

NO-11902 Expandable envelope with:

- A total of 75 black and white aerial photographs, some with annotations, covering portions of the Elkton, Harrisonburg, University, and Waynesboro 15' quadrangles, Virginia. 1951 survey.
- Map composed of portions of the Elkton, Harrisonburg, University, and Waynesboro 15' quadrangles, Virginia, with approximate locations of aerial photography coverage indicated.

- NO-11903 Two expandable envelopes with:
- A total of 117 black and white aerial photographs, some with annotations, covering the Parnassus 15' quadrangle, Virginia-West Virginia. 1951 survey.
  - Copy of the Parnassus 15' quadrangle, Virginia-West Virginia, with approximate locations of aerial photography coverage indicated.
- NO-11904 Expandable envelope with 15 black and white aerial photographs, some with annotations, covering the McDowell 15' quadrangle, Virginia-West Virginia. 1951 survey.
- NO-11905 Expandable envelope with 27 black and white aerial photographs, some with annotations, covering portions of the Blue Ridge area, Virginia, between Massanutten and Big Levels. 1951 survey.
- NO-11906 Expandable envelope with seven black and white aerial photographs, some with annotations, covering the Big Levels-Sherando Lake area, Big Levels 7.5' quadrangle, Virginia. 1957 survey.
- NO-11907 Expandable envelope with:
- Two photomosaic indexes showing aerial photo coverage for 1947-1948 surveys of the Boomer and Table Rock 15' quadrangles, North Carolina.
  - A total of 46 black and white aerial photographs, some with annotations, covering the Linville Falls area, North Carolina. 1947 survey.
- NO-11908 Expandable envelope with eight black and white aerial photographs, some with annotations, covering the Oldrag area, Stony Man 15' quadrangle, Virginia. 1963 survey.
- NO-11909 Expandable envelope with three black and white aerial photographs covering the Galax-Fries-New River area, Carroll and Grayson Counties, Virginia.
- NO-11910 Expandable envelope with 23 miscellaneous aerial photographs:
- Seven black and white aerial photographs showing circular patterns and exfoliation in crystalline terrane in the Grandfather Mountain area, North Carolina, related to an article published by Hack in the Geological Society of America Bulletin, Vol. 77, No. 9, 1966. 1947 survey. Also included is a 1968 letter from J.T. Hack to H.W. Smedes discussing the photos.
  - Two black and white aerial photographs showing fractures on the Malaspina Glacier, Alaska, also discussed in Hack's letter to Smedes. 1948 survey.
  - Fourteen black and white aerial photographs of the Yosemite National Park area, California. 1955 survey.
- NO-11911 Expandable envelope with 19 black and white aerial photographs, some with annotations, covering the Potomac River in the vicinity of Marshall Hall, near Mount Vernon, Virginia. 1972 survey.

- NO-11912 Expandable envelope with 20 unannotated black and white aerial photographs marked "USAF For Official Use Only". The photos are mostly unidentified but appear to be in the same sequence; some are labeled "VM Maine NH Area 2". 1958 survey.
- NO-11913 Expandable envelope with 26 unannotated black and white aerial photographs marked "USAF For Official Use Only". The photos are mostly unidentified but appear to be in the same sequence; some are labeled "VM Maine NH Area 2". 1958 survey.
- NO-11914 Expandable envelope with 31 unannotated black and white aerial photographs marked "USAF For Official Use Only". The photos are mostly unidentified but appear to be in the same sequence; some are labeled "VM Maine NH Area 2". 1958 survey.
- NO-11915 Expandable envelope with 23 black and white aerial photographs, some with annotations or annotated drafting-film overlays, covering the vicinity of Mooselookmeguntic and Rangeley Lakes, Franklin and Oxford Counties, Maine. The photos are marked either "VM 573 AST-1 1370PMW USAF 27 JUN 60" or "VM 526 AST-1 1370PMW USAF 19 MAY 60".
- NO-11916 Expandable envelope with 42 black and white aerial photographs, some with annotations or annotated drafting-film overlays, covering the vicinity of Lang Township, Franklin County, Maine. 1961 survey.
- NO-11917 Expandable envelope with black and white aerial photographs, covering the vicinity of Franklin and Somerset Counties, Maine. 1960 survey.
- NO-11918 Document box with:
- Approximately 325 black and white aerial photographs, some with annotations. Photos are labeled "Maine Project", and either "Project 73-A" or "Project 73-B". Note: The packaging materials for these photographs are labeled "Espenshade", and may be related to one or more of Gilbert H. Espenshade's Maine projects. 1951-1952 survey.
  - USGS topographic index map for Maine (dated 1957) with aerial photography survey lines and revision and completion data indicated. The map is labeled "AMA High-Alt. Photos".
- NO-11919 Two document boxes with approximately 500 black and white aerial photographs, some with annotations. Flight line, photo number, and date are indicated, but no other identification is included. The photos were received with, and packaged similarly to, those in NO-11918, and may be a part of the same "Maine Project(s)". 1966 survey.